

Audits conducted pursuant to 2 U.S.C. § 437g, § 438(b), and Title 26, U.S.C.
Matters concerning participation in civil actions or proceedings or arbitration.
Internal personnel rules and procedures or matters affecting a particular employee.

DATE AND TIME: Thursday, December 12, 1991, 10:00 a.m..

PLACE: 999 E Street, N.W., Washington, D.C. (Ninth Floor).

STATUS: This Meeting Will Be Open to the Public.

ITEMS TO BE DISCUSSED:

Correction and Approval of Minutes
Title 26 Certification Matters
Advisory Opinion 1991-35: Mr. Carl G. Borden of California Farm Bureau Federation
Administrative Matters

PERSON TO CONTACT FOR INFORMATION:

Mr. Fred Eiland, Press Officer,
Telephone: (202) 219-4155.

Delores Harris,

Administrative Assistant.

[FR Doc. 91-29298 Filed 12-3-91; 3:00 pm]

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14 CFR Parts 25, 121, and 125

Thursday
December 5, 1991

Part II

Department of Transportation

Federal Aviation Administration

14 CFR Parts 25, 121 and 125
Landing Gear Aural Warning; Final Rule

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 25, 121 and 125

[Docket No. 25991, Amendment Nos. 25-75, 121-227, and 125-16]

RIN 2120-AC82

Landing Gear Aural Warning

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: These amendments to the Federal Aviation Regulations (FAR) update the airworthiness standards for landing gear aural warning systems in transport category airplanes to reflect current design practices. They require that if a landing is attempted when the landing gear is not locked down, the flightcrew must be given an aural warning in sufficient time to allow the landing gear to be locked down or a go-around to be made. These amendments state the intent of the current regulations in more objective terms to eliminate nuisance warnings and to simplify the certification process.

EFFECTIVE DATE: January 6, 1992.

FOR FURTHER INFORMATION CONTACT: Gene Vandermolen, Flight Test and Systems Branch (ANM-111), Transport Airplane Directorate, Aircraft Certification Service, FAA, 1601 Lind Ave. SW., Renton, Washington 98055-4056; telephone (206) 227-2135.

SUPPLEMENTARY INFORMATION:**Background**

This amendment is based on Notice of Proposed Rulemaking (NPRM) 89-20 (54 FR 34116, August 17, 1989). As discussed in the notice, parts 25, 121, and 125 of the FAR contain similarly worded requirements for a landing gear aural warning system. The function of this system is to provide the flightcrew with an aural alert if the landing gear is not extended and locked at the appropriate time. For example, § 25.729(e), as amended by Amendment 25-42 (43 FR 2302, January 16, 1978) states, in pertinent part, that:

(2) Landplanes must have an aural warning device that will function continuously when one or more throttles are closed, if the landing gear is not fully extended and locked.

(3) If there is a manual shutoff for the aural warning device prescribed in paragraph (e)(2) of this section, the warning system must be designed to [sic] that, when the warning has been suspended after one or more throttles are closed, subsequent retardation of any throttle to or beyond the position for a normal landing approach will activate the aural warning.

(4) Landplanes must have an aural warning device that will function continuously, when the wing flaps are extended beyond the maximum approach position determined under § 25.67(e), if the gear is not fully extended and locked. There may not be a manual shutoff for this warning device. The flap position sensing unit may be installed at any suitable location. The system for this device may use any part of the system (including the aural warning device) for the device required in paragraph (e)(2) of this section.

These standards are very specific as to when the aural warning system should function. While they were appropriate in that regard for the reciprocating-powered airplanes, the standards were later found to be inappropriate for the operation of modern turbojet-powered airplanes for the following reasons:

a. An aural warning is required by the FAR whenever the thrust levers are retarded and the landing gear is not fully extended and locked. Since this often occurs at the start of descent, at an altitude that is inappropriate for gear extension, the warning is immediately canceled by the crew. This untimely alert and the subsequent cancellation causes flightcrew distraction. Once the warning is canceled, there is no warning to the flightcrew just prior to landing if it is needed.

b. If an engine fails immediately after takeoff, the pilot must immediately raise the landing gear to minimize airplane drag and retard the thrust lever on the failed engine. This results in an immediate aural warning that is inappropriate for the situation. Furthermore, it could create a hazardous distraction to members of the flightcrew when they are coping with the engine failure.

c. An aural warning is also required when the flaps are extended beyond the maximum setting for approach and the landing gear is not fully extended and locked. This is appropriate for reciprocating-powered airplanes, which typically have landing flap settings that are greater than the approach and takeoff flap settings. Today some turbine-powered airplanes have flap settings that are the same for approach and takeoff as for landing. For those airplanes, compliance with these standards results in an inappropriate aural warning when the landing gear is raised after takeoff. Furthermore, no warning is provided when nonstandard flap settings and thrust levels are used for one-engine-inoperative approaches.

In order to preclude such nuisance or inappropriate aural warnings, modern transport category airplanes typically have means to inhibit the aural warning system during some phases of flight.

Because the warning systems on these airplanes do not comply with the existing certification and operational standards, findings of equivalent level of safety or exemptions are necessary. This process is time-consuming and may result in type certification delays. Furthermore, as noted above, the means to inhibit the warning system may result in no warning to the flightcrew at the very time a warning is needed.

The fundamental problem with the current standards is that they fail to state the safety intent, but instead state how the requirements should be met. Therefore, the regulations on landing gear aural warning are being revised to state the performance objectives without stating how the requirements should be implemented. This allows the manufacturers to use their ingenuity in designing systems that minimize nuisance warnings.

It should be noted that the term "throttle" is a carry-over from reciprocating-powered airplanes and is a misnomer insofar as turbine-powered airplanes are concerned. The term "thrust lever" is generally used instead for turbine-powered airplanes.

Discussion of Comments

Several commenters responded to the request for comments contained in Notice 89-20. These included the public, foreign authorities, industry, and manufacturers.

One of the airplane manufacturers is concerned that the new rule might not allow a system in which the aural warning is silenced when the flightcrew selects the landing gear handle down rather than when the landing gear is actually down and locked. The commenter contends that the former configuration should be acceptable.

The FAA does not concur. The objective of the old rule, which required a continuous aural warning until the landing gear was fully extended and locked, was to provide warning of either flightcrew error or failure of the landing gear to extend and lock. That objective is unchanged. The system described by the commenter would not be acceptable under either the old rule or the amended rule.

Many commenters object to the proposed rule's not allowing a manual shutoff for the aural warning. Examples are given of situations during which deliberate silencing of the aural warning would be desirable. These commenters do not believe that nuisance alerts could be completely eliminated no matter how sophisticated the design might be.

In consideration of these comments, the FAA agrees that a manual shutoff

should not be prohibited; however, the control device that shuts off the aural warning must be designed so that it cannot be inadvertently actuated by the flightcrew. It also should not be so convenient to the flightcrew that it is operated by habitual reflexive action (i.e., like an autopilot disconnect switch on the control wheel). It should be obvious to the flightcrew, or a means should be provided to inform the flightcrew, when the manual control device has been positioned to silence the warning.

One commenter suggests that the following design requirements be instituted: (1) The warning system should incorporate a means to inhibit the warning based on high airspeed and/or altitude to eliminate nuisance warnings during descent, (2) The warning system should be designed to re-energize the aural warning after a time delay when it is manually silenced, and (3) The warning system should retain the "gear not down—landing flaps selected" feature.

The FAA does not concur with the suggestion, because adding design requirements to the rules would dictate specific design. Requirement (1) above may be one means for preventing nuisance warnings, but not the only means. Requirement (2) is considered unnecessary because the majority of nuisance warnings will be eliminated by careful system design. Also, if the flightcrew deliberately silences the aural warning in an emergency situation, for example, recurring warnings could be disruptive. Requirement (3) would not be needed if the objective of the rule is met; namely, that an aural warning must be given if a landing is attempted when the landing gear is not locked down. It should be noted that this amendment is needed because the existing landing gear aural warning rules were too specific. Stating the requirements in an objective manner provides more latitude in tailoring the system to the specific airplane involved.

One commenter is concerned about the interpretation of the requirement that failures of systems which provide inhibit logic to the aural warning system, that would prevent the aural warning system from operating, must be improbable. The commenter believes "improbable" has a wide probability range and should be clearly defined.

The FAA does not agree that the term "improbable" is not clearly defined. Though it does have a wide probability range, that range is defined precisely in AC 25.1309-1A. This requirement would be satisfied by meeting the upper boundary of the probability range given in the AC.

The European Joint Aviation Authorities (JAA) suggest that the FAA and JAA requirements for landing gear aural warning should be standardized. For a number of years the JAA D and F Study Group has also been working on a revision to the landing gear aural warning requirements contained in Joint Aviation Requirements (JAR) 25.729(e) (2), (3) and (4). The intent of the JAR revision is the same as that proposed in NPRM 89-20. However, the FAA revision includes a statement that emphasizes the need to eliminate false or inappropriate alerts in the design of the system. It also contains a reliability requirement for systems that provide inhibit logic to the aural warning system. These requirements are considered necessary to assure a design of high reliability.

The FAA concurs that U.S. and European requirements should be standardized wherever feasible. Therefore, the FAA is adopting the JAR revision of § 25.729(e) (2), (3), and (4). In addition, § 25.729(e) (5) and (6) are being added as follows:

(5) The system used to generate the aural warning must be designed to eliminate false or inappropriate alerts.

(6) Failures of systems used to inhibit the landing gear aural warning, that would prevent the warning system from operating, must be improbable.

These are all minor nonsubstantive changes that place no additional burden on any person. Except for the changes noted above, the amendments are adopted as proposed in Notice 89-20.

Regulatory Evaluation

This section summarizes the regulatory evaluation prepared by the FAA on The Landing Gear Aural Warning System. The summary discusses expected costs and benefits of these amendments.

Executive Order 12291, dated February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each regulatory change outweigh potential costs. The order also requires the preparation of a Regulatory Impact Analysis of all "major" rules except those responding to emergency situations or other narrowly defined exigencies. A "major" rule is one that is likely to result in an annual effect on the economy of \$100 million or more, a major increase in consumer costs, or a significant adverse effect on competition.

The FAA has determined that this rule is not "major" as defined in the executive order; therefore, a full regulatory analysis, that includes the

identification and evaluation of cost-reducing alternatives to this rule, has not been prepared. Instead, the agency has prepared a more concise document termed a regulatory evaluation that analyzes only this rule without identifying alternatives. In addition to a summary of the regulatory evaluation, this section also contains a regulatory flexibility determination required by the 1980 Regulatory Flexibility Act (Pub.L. 96-354) and an international trade impact assessment.

This rule will amend the airworthiness standards for transport category airplanes (part 25). The existing standards are specific with respect to method of compliance and are more appropriate for reciprocating-powered airplanes than for modern turbojet-powered airplanes. The rule states the objectives of the requirements without stating how the requirements should be implemented, thereby allowing manufacturers to use their ingenuity in designing systems. The rule will not affect existing certificated aircraft.

None of the comments received in response to Notice 89-20 pertain to the economic evaluation.

This rule updates the airworthiness standards for landing gear aural warning systems in transport category airplanes to reflect current design practices. However, the rule will not affect existing certificated airplanes and hence, will not result in incremental compliance costs to operators or to manufacturers of airplanes. Furthermore, the rule relieves the aircraft manufacturing industry of the burden of following regulations that have become outdated due to technological change, and eliminates a manufacturer's need to apply for exemptions in order to utilize technologies that are not in technical compliance with the FAR, but nevertheless meet the safety requirements of the FAA.

This rule will allow aircraft manufacturers to remain in regulatory compliance without asking the FAA for equivalent-level-of-safety findings. The rule will impose no compliance costs. However, there is a small cost savings to the FAA amounting to approximately \$68,000, discounted over the next ten years. Hence, this rule is considered cost beneficial by the FAA.

This rule will not affect foreign or domestic operators or manufacturers. Hence, the rule will have no impact on international trade. Since this rule has no cost impact, a substantial number of small entities including airplane manufacturers and operators under

parts 121 and 125 will not incur significant economic costs.

Federalism Implications

The regulations contained herein do not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this amendment does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

Because the regulations contained herein are expected to result only in negligible costs, the FAA has determined that this rule is not major as defined in Executive Order 12291. Because this is an issue that has not prompted a great deal of public concern, this rule is not considered to be significant as defined in Department of Transportation Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). In addition, since there are no small entities affected by this rule, it is certified under the criteria of the Regulatory Flexibility Act that this rule, at promulgation, will not have a significant economic impact, positive or negative, on a substantial number of small entities.

List of Subjects

14 CFR Part 25

Aircraft, Aviation safety, Safety.

14 CFR Part 121

Aircraft, Airplanes, Airworthiness, Pilots.

14 CFR Part 125

Aviation safety, Safety, Air carriers, Aircraft pilots, Airplanes, Pilots.

The Amendment

Accordingly, parts 25, 121, and 125 of the Federal Aviation Regulations (FAR)

(14 CFR parts 25, 121, and 125) are amended as follows:

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. The authority citation for part 25 continues to read as follows:

Authority: 49 U.S.C. 1344, 1354(a), 1355, 1421, 1423, 1424, 1425, 1428, 1429, 1430; 49 U.S.C. 106(g).

2. By amending § 25.729, by revising paragraphs (e)(2) through (e)(4) and by adding paragraphs (e)(5) and (e)(6) to read as follows:

§ 25.729 Retracting mechanism.

* * * * *

(e) * * *

(2) The flightcrew must be given an aural warning that functions continuously, or is periodically repeated, if a landing is attempted when the landing gear is not locked down.

(3) The warning must be given in sufficient time to allow the landing gear to be locked down or a go-around to be made.

(4) There must not be a manual shut-off means readily available to the flightcrew for the warning required by paragraph (e)(2) of this section such that it could be operated instinctively, inadvertently, or by habitual reflexive action.

(5) The system used to generate the aural warning must be designed to eliminate false or inappropriate alerts.

(6) Failures of systems used to inhibit the landing gear aural warning, that would prevent the warning system from operating, must be improbable.

* * * * *

PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

3. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1356, 1357, 1401, 1421–1430, 1472, 1485, and 1502; 49 U.S.C. 106(g).

4. By amending § 121.289 by revising the introductory text of paragraph (a) to read as follows:

§ 121.289 Landing gear: Aural warning device.

(a) Except for airplanes that comply with the requirements of § 25.729 of this chapter on or after January 6, 1992, each large airplane must have a landing gear aural warning device that functions continuously under the following conditions:

* * * * *

PART 125—CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE

5. The authority citation for part 125 continues to read as follows:

Authority: 49 U.S.C. 1354, 1421 through 1430, and 1502; 49 U.S.C. 106(g).

6. By amending § 125.187 by revising the introductory text of paragraph (a) to read as follows:

§ 125.187 Landing gear: Aural warning device.

(a) Except for airplanes that comply with the requirements of § 25.729 of this chapter on or after January 6, 1992, each airplane must have a landing gear aural warning device that functions continuously under the following conditions:

* * * * *

Issued in Washington, DC, on November 26, 1991.

James B. Busey,
Administrator.

[FR Doc. 91-29033 Filed 12-4-91; 8:45 am]

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Gas and Liquids

Thursday
December 5, 1991

Part III

Department of Transportation

Research and Special Programs Administration

**49 CFR Parts 190, 191, 192, and 195
Offshore Gas and Hazardous Liquid
Pipelines; Inspection and Burial; Final
Rule**

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 190, 191, 192, and 195

[Docket No. PS-120; Amdts. 190-4, 191-9, 192-67, and 195-47]

RIN 2137-AB 96

Inspection and Burial of Offshore Gas and Hazardous Liquid Pipelines

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: Natural gas and hazardous liquid pipelines buried in shallow offshore waters in the Gulf of Mexico have been involved in accidents with fishing and other vessels. Public Law 101-599 was enacted to determine the extent to which pipelines in shallow waters in the Gulf of Mexico may be a hazard to fishing vessels. This Final Rule implements the immediate provisions of Public Law 101-599 amending the Natural Gas Pipeline Safety Act of 1968 and the Hazardous Liquid Pipeline Safety Act of 1979. Under this final rule, operators of natural gas and hazardous liquid pipelines are required to do the following: (1) Conduct an underwater inspection of pipelines in the Gulf of Mexico and its inlets located in water less than 15 feet deep, by November 16, 1992; (2) report to the Coast Guard those pipelines which have been discovered to be exposed or otherwise present a hazard to navigation and mark such pipelines with a buoy; and (3) bury, within 6 months, those pipelines identified under (2) above, or by any other person. This Final Rule also provides for reporting the results of the underwater inspection to the Department, as well as providing for criminal penalties for damaging, removing, defacing, or destroying a pipeline marker buoy.

EFFECTIVE DATE: The effective date of this final rule is January 6, 1992.

FOR FURTHER INFORMATION CONTACT: Cesar De Leon, (202) 366-1640, regarding the subject matter of this amendment or the Dockets Unit, (202) 366-4148, regarding copies of this amendment or other material in the docket.

SUPPLEMENTARY INFORMATION:**Background**

The RSPA issued a Notice of Proposed Rulemaking (NPRM) on April 29, 1991, (56 FR 19627) proposing regulations to implement the immediate provisions of Public Law 101-599 (enacted November

16, 1990) to conduct underwater inspections of pipelines in shallow waters in the Gulf of Mexico and its inlets. This law was enacted to address the consequences of recent accidents involving fishing vessels that struck pipelines in shallow waters in the Gulf.

On July 24, 1987, a fishing vessel struck and ruptured an 8-inch diameter natural gas liquid pipeline while maneuvering in shallow waters in the Gulf of Mexico off the coast of Louisiana. The released gas ignited, resulting in the deaths of two crewmen. The pipeline was originally installed in 1968 and buried onshore, parallel to the shoreline. In the intervening years, the shoreline underwent substantial erosion, and at the time of the accident, the pipeline reportedly was exposed on the seabed in open water approximately 1 mile offshore.

On October 3, 1989, a 160-foot menhaden fishing vessel, the Northumberland, struck a Natural Gas Pipeline Co. 16-inch diameter offshore gas transmission pipeline about a 1/2 nautical mile offshore in the Gulf of Mexico near Sabine Pass, Texas. Natural gas under a pressure of 835 psig was released. An undetermined source onboard the vessel ignited the gas and engulfed the vessel in flames. Eleven of fourteen crew members died as a result of the accident.

In February 1990, at the request of RSPA, a joint task force was formed, made up of five Federal agencies and two state agencies to develop solutions to the risks posed by the co-existence of pipelines and vessel operations in the Gulf of Mexico. The agencies represented were RSPA, the Minerals Management Service (MMS) of the Department of the Interior, the National Ocean Service of the National Oceanic and Atmospheric Administration, the U.S. Coast Guard, the U.S. Army Corps of Engineers, the Texas Railroad Commission, and the Louisiana Office of Conservation. A report prepared by the joint task force is available in the docket. On April 9, 1990, the RSPA sent an Alert Notice to all operators of natural gas and hazardous liquid pipelines located in offshore waters to advise pipeline operators of recurring safety problems involving marine vessel operations and to alert them that exposed pipelines pose a threat to the safety of the crews of fishing vessels in shallow coastal waters. It also advised pipeline operators to identify and correct any conditions that would violate applicable pipeline safety requirements. RSPA also sent the Alert Notice to several fishing associations to alert the commercial fishing industry to

the potential hazards of exposed offshore pipelines.

The RSPA pipeline safety regulations currently require that all newly constructed gas and hazardous liquid offshore pipelines located in water less than 12 feet in depth must have a minimum of 36 inches of cover or 18 inches in consolidated rock (49 CFR 192.327 and 195.248). Newly constructed gas and hazardous liquid pipelines in offshore waters from 12 feet to 200 feet deep must be installed so that the top of the pipe is below the seabed unless the pipe is protected by other equivalent means (§§ 192.319 and 195.246). The MMS issues rights-of-way permits for pipelines on the Outer Continental Shelf (OCS) and requires that newly constructed pipelines be buried 36 inches (30 CFR 250.153). The Corps of Engineers issues permits for burial of offshore pipelines and normally requires that newly constructed pipelines be buried to a depth of 36 inches in water less than 200 feet deep. However, none of the three agencies currently require that pipeline operators conduct an underwater inspection of those pipelines.

Public Law 101-599

Public Law 101-599 amended the Natural Gas Pipeline Safety Act of 1968 (NGPSA) (49 U.S.C. 1671 *et seq.*) and the Hazardous Liquid Pipeline Safety Act of 1979 (HLPESA) (49 U.S.C. 2001 *et seq.*), which are administered by the RSPA. The law requires that not later than 18 months after enactment or 1 year after issuance of regulations, whichever occurs first, the operator of each offshore gas or hazardous liquid pipeline facility in the Gulf of Mexico and its inlets shall inspect such pipeline facility and report to the Department on any portion of a pipeline facility which is "exposed" or is a "hazard to navigation" (as those terms are defined in this final rule). Therefore, this initial inspection must be completed by May 16, 1992 or 1 year after issuance of regulations, whichever comes first. This requirement shall apply to pipeline facilities between the high water mark and the point where the subsurface is under 15 feet of water, as measured from mean low water. In accordance with Public Law 101-599, hazardous liquid gathering lines of 4 inch nominal diameter and smaller are excepted from this inspection. The Department may extend the time period for compliance with this inspection requirement for an additional period of up to 6 months for gas transmission pipeline facilities, or up to 1 year for hazardous liquid pipeline facilities. The law provides that any inspection of a

pipeline facility which has occurred after October 3, 1989 (the date of the Northumberland accident) may satisfy the inspection requirements if it complies with the pertinent requirements in this final rule.

Public Law 101-599 requires the Department to establish standards by May 16, 1991, on what constitutes an "exposed pipeline facility," and what constitutes a "hazard to navigation." The law requires that pipeline operators report to the Department, through the appropriate Coast Guard offices, potential or existing navigational hazards involving pipeline facilities. As a result of the inspection, an operator of a pipeline facility who discovers any pipeline facility which is a hazard to navigation in water 15 feet deep or less as measured from mean low water, must mark the location with a Coast Guard approved marine buoy or marker and notify the Department. The law provides for criminal penalties for persons who willfully and knowingly damage, deface, remove, or destroy the marine buoy or marker. Public Law 101-599 also requires the Secretary of Transportation to issue regulations requiring each gas and hazardous liquid pipeline facility that has been inspected and found to be exposed or that constitutes a hazard to navigation, be buried within 6 months after the condition is reported to the Department.

Furthermore, Public Law 101-599 requires that not later than 30 months after enactment of the law, or May 16, 1993, the Secretary shall, on the basis of experience with the initial inspection program, establish a mandatory, systematic, and, where appropriate, periodic inspection program of offshore pipeline facilities in the Gulf of Mexico and its inlets. This requirement will be addressed in a future rulemaking.

In addition, Public Law 101-599 amends the Ports and Waterways Safety Act (33 U.S.C. 1221 *et seq.*), which is administered by the Coast Guard, to encourage fishermen and other vessel operators to report potential or existing navigational hazards involving pipeline facilities to the Department through the appropriate Coast Guard field office. Upon notification by the pipeline operator or by any other person of a hazard to navigation, the Department will notify the Coast Guard, the Office of Pipeline Safety, other affected Federal and state agencies, and vessel owners and operators in the vicinity of the pipeline facility.

Advisory Committees

This regulatory document was twice brought before the Technical Pipeline Safety Standards Committee (TPSSC)

and the Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC). These advisory committees were established by statute to consider the feasibility, reasonableness, and practicability of proposed pipeline safety regulations.

The TPSSC met in Washington, DC on February 20, 1991 and the THLPSSC met in Washington, DC on February 21, 1991. These advisory committees informally discussed a draft NPRM, which proposed revisions to the regulations in Parts 192 and 195 regarding offshore pipelines. That draft notice considered by the advisory committees addressed the requirements in Public Law 101-599 as well as additional matters that were not included in the law but which had been addressed by the multi-agency task force formed after the Northumberland accident.

As a result of the opinion of the advisory committees, the proposed rule was narrowed to address only the immediate requirements of Public Law 101-599 and those requirements were proposed in the NPRM. The longer-term mandates of Public Law 101-599, as well as other offshore and underwater pipeline proposals that may merit consideration, will be addressed in a future proposed rulemaking.

Because the law has mandatory deadlines for issuance of the regulations and for completion of the initial inspection, these regulations must be expedited. Therefore, after receiving comments on the NPRM, a summary of the comments together with the NPRM were mailed to each member of the advisory committees for a vote by mail.

After receiving a summary of the comments, both advisory committees voted by mail that the NPRM rule was technically feasible, reasonable, and practicable with certain revisions suggested by some of the members. Four members of the TPSSC voted that the proposed regulations were feasible, reasonable, and practicable as published in the *Federal Register*. Eight members agreed, but suggested revisions. Six members of the THLPSSC voted that the proposed regulations were feasible, reasonable, and practicable, as published in the *Federal Register*. Five members agreed, but suggested revisions. Some of the members did not vote. All of the revisions proposed by committee members are encompassed in the comments and recommendations made by commenters to the NPRM, and the disposition of these comments is addressed below in "DISCUSSION OF COMMENTS."

Discussion of Comments

RSPA received 27 comments in response to the Notice, including 13 from pipeline operators, 4 pipeline industry associations (American Gas Association, Gas Pipeline Technology Committee, American Petroleum Institute, and Interstate Natural Gas Association of America), the National Transportation Safety Board, the Department of the Interior, the National Fisheries Institute, the American Shrimp Processors Association, and comments from 3 individual members of the Technical Pipeline Safety Standards Committee and the Technical Hazardous Liquid Pipeline Standards Committee. Some of the comments from pipeline companies were also signed by members of the advisory committees. RSPA appreciates comments on the NPRM provided by the members of the advisory committees. RSPA also appreciates the prompt submittal of comments considering the short comment period. The excellent comments received indicate that there was sufficient time for the commenters to prepare well-founded responses.

Miscellaneous Comments

The National Fisheries Institute commented that the Preamble to the NPRM stated that neither the RSPA, MMS, or Corps of Engineers requires that pipeline operators conduct an underwater inspection or maintain burial of offshore pipelines. The Fisheries Institute commented that while underwater inspections may not be conducted, the permits issued by the Corps of Engineers require that the depth of burial of offshore pipelines be maintained. The U.S. District Court for the Western District of Louisiana, Monroe Division upheld that interpretation. RSPA and the Corps agree and has corrected this statement in the Preamble to this final rule.

A member of the THLPSSC raised the question of who would be responsible for inspecting abandoned pipelines. Also, the Louisiana Office of Conservation (LOC) stated that while they recognize that the accidents that occurred were caused by fishing vessels striking active pipelines, they remain concerned about the hazards to persons and property posed by pipeline facilities that have been abandoned in place and that are currently not subject to any inspection requirements. The LOC estimates that there are approximately 4,000 miles of abandoned pipelines in the offshore waters of Louisiana. The LOC commented that DOT has unquestioned authority to impose

conditions for abandonment of pipelines and should require, as a pre-requisite to allowing abandonment in place, that the owners of such pipelines undertake to maintain their burial, or alternatively, remove them from the seabed.

RSPA agrees that this is a matter of concern and will reconvene the Task Force on Offshore Pipelines to consider the problems of abandoned pipelines in offshore waters. In addition, identical legislative proposals sponsored by Congressman Billy Tauzin and Senator John Breaux would amend the NGPSA and the HLPFA to require that abandoned offshore pipelines be given the same safety considerations as pipelines currently in use. RSPA, in cooperation with the Task Force, will examine the issue of abandoned offshore pipelines as part of the subsequent offshore rulemaking noted previously. However, this final rule has been limited to the NPRM which incorporates the immediate requirements in Public Law 101-599.

Chevron commented that they interpreted the rulemaking to apply to lines constructed prior to the passage of the initial pipeline safety acts, NGPSA and HLPFA. Chevron observed that up to now, these lines have been "grandfathered" from meeting all construction requirements of parts 192 and 195 and if this were no longer true, the applicability sections of parts 192 and 195 should be modified to clarify whether these lines are being regulated and to what degree. Public Law 101-599 requires that all pipelines located in waters less than 15 feet deep in the Gulf of Mexico and its inlets be inspected and that all pipelines that are exposed or are a hazard to navigation be subject to notification, marking, and re-burial and does not make a distinction for pipelines that were constructed prior to the promulgation of the NGPSA and the HLPFA. Therefore, these proposed regulations requiring the inspection and re-burial of pipelines in the Gulf of Mexico and its inlets, are included in subpart L of part 192 (Operations) and in subpart F of part 195 (Operations and Maintenance), which are applicable to all pipelines regardless of when they were constructed.

Tenneco Gas commented that they expect the Coast Guard will recognize that agency's responsibility in this matter, and take steps to end the prevailing practice of fishing vessels running in waters that are too shallow for the draft of the vessel. Tenneco Gas further commented that the Coast Guard has the opportunity to bring about a great advance in offshore safety by formulating and enforcing minimum

fishing boat standards covering maps, instruments, operator training, operator competence, and a prohibition against fishing boats navigating in waters that are insufficiently deep for the boat draft.

The Coast Guard is discussing these issues in their Commercial Fishing Industry Vessel Advisory Committee meetings. RSPA will continue to work with the Coast Guard and that advisory committee in exploring ways that commercial fishing operators can change their fishing practices to protect their vessels from the hazards of pipelines in shallow offshore waters.

The National Transportation Safety Board (NTSB) noted that the NPRM did not include all pipelines in the Gulf of Mexico, such as hazardous liquid pipelines operating at less than 20 percent of the pipe's specified minimum yield strength (SMYS) and hazardous liquid pipelines having 4-inch or less nominal diameter. The NTSB believes that future action by the RSPA must address all submerged pipelines that transport hazardous liquids based on the threat to public safety, rather than the pipeline's physical properties or operating characteristics. With regard to hazardous liquid pipelines having 4-inch or less nominal diameter, Public Law 101-599 specifically excepted hazardous liquid gathering lines of this size from these requirements. With regard to hazardous liquid pipelines operating at 20 percent or less of the pipe's SMYS, the current hazardous liquid pipeline safety regulations do not apply to pipelines at these low-stress levels. An Advance Notice of Proposed Rulemaking (ANPRM) issued by RSPA on October 31, 1990 (55 FR 45822) solicited comments and information for evaluation in determining whether and to what extent this exception should be removed from the regulations. If this exception of pipelines operating at 20 percent or less of SMYS is removed, the subsequent rulemaking on a mandatory and systematic inspection program of offshore pipelines in the Gulf of Mexico and its inlets as required by Public Law 101-599 would apply to such hazardous liquid pipelines.

The following additional points, set forth in the Preamble in the NPRM, bear repeating here. This final rule incorporates all of the immediate requirements of Public Law 101-599 for which RSPA is responsible. These regulations apply similarly to both gas transmission and hazardous liquid pipeline facilities, and are applicable to interstate and intrastate offshore pipelines. In accordance with the current requirements in §§ 192.1 and 195.1, these rules are applicable to

offshore pipeline facilities on the OCS as that term is defined in the Outer Continental Shelf Lands Act (43 U.S.C. 1331).

However, in accordance with the current requirements in §§ 192.1(b)(1) and 195.1(b)(5), this amendment would not apply to the offshore gathering of gas or hazardous liquids upstream from the outlet flange of each facility on the OCS where hydrocarbons are produced or where hydrocarbons are first separated, dehydrated, or otherwise processed, whichever facility is farther downstream. The Minerals Management Service (MMS) has responsibility for gathering of gas or hazardous liquids upstream from that outlet flange pursuant to a 1976 memorandum of understanding between the Department of the Interior and the Department of Transportation. It should also be noted that gathering lines do not include production flow lines. The appropriate distinction between production flow lines and gathering lines will be addressed in an upcoming NPRM proposing to revise the definition of a gathering line.

It is also important to note that for the purpose of this final rule, the term "pipeline facilities," as set forth in Public Law 101-599 was not used. "Pipeline facilities" is defined by RSPA regulations (§§ 192.3 and 195.2) to include such facilities as offshore platforms that are not intended to be buried. There is no indication to suggest that such structures were intended to be addressed by the statute. Therefore, the final rule applies to pipelines which, in accordance with the definition of "pipeline" in §§ 192.3 and 195.2, means all parts of those physical facilities through which gas or hazardous liquids move in transportation, including pipe, valves, and other appurtenances attached to a pipe.

Part 191.1 A member of the TPSSC observed that currently, part 191 applies to operators of gas pipeline facilities; and yet, proposed § 191.27 in the NPRM was meant to apply to operators of hazardous liquid pipeline facilities, as well as operators of gas pipeline facilities. The American Petroleum Institute (API) also commented that because part 191 has traditionally addressed natural gas pipelines, they recommend that RSPA remove the applicability of proposed § 191.27 to hazardous liquid pipelines and provide a parallel provision in part 195.

RSPA agrees. RSPA had expected § 191.27 to be a precursor of a future relocation of all the reporting requirements in subpart B of part 195 to part 191. However, in the meantime,

proposed § 191.27 in the NPRM has been adopted as applicable only to natural gas pipelines, and a new § 195.57 has been inserted in subpart B of part 195 to be applicable to hazardous liquid pipelines.

Exxon commented that the location of an exposed pipeline and a pipeline that is a hazard to navigation as addressed in proposed § 191.17(a)(5) and § 191.27(a)(6), respectively, may not be able to be identified according to an MMS or state offshore area and block number tract. This is due to the fact that inlets in the Gulf may not be subject to such identification. RSPA agrees and has revised § 191.27(a)(5) and (a)(6) and § 195.57(a)(5) and (a)(6) to require that the operator report the location of each pipeline segment that is exposed or is a hazard to navigation. In addition, if available, the location must be cited according to MMS or state offshore area and block number tract. Where an MMS or state offshore area and block number tract are not available, the location must be reported by the name of the bay or inlet or by other suitable location reference.

The Interstate Natural Gas Association of America (INGAA) noted that the Preamble stated that the definition of a "hazard to navigation," i.e., where a pipeline is buried less than 12 inches below the seabed, subsumes the definition of "exposed pipeline" where the pipeline is protruding above the seabed. INGAA believes that separate reports should not be required. RSPA has not incorporated these two reporting requirements into one reporting requirement because in addition to the mandates in Public Law 101-599, RSPA is interested in getting information if a pipeline is exposed or buried less than 12 inches. This information will be relevant to the subsequent rulemaking on a mandatory, systematic, and, if appropriate, periodic inspection program as required by Public Law 101-599. Therefore, both terms, "exposed pipeline" and "hazard to navigation" remain in the regulations in Parts 192 and 195.

Section 192.1. Exxon found fault with proposed § 191.1(b)(2)(iii). They noted that the Preamble stated that the proposed § 191.1(b)(2)(iii) is intended to clarify that gathering lines in the Gulf of Mexico and its inlets will be subject to the proposed inspection, marking, and reburial requirements in §§ 192.612 and 195.413. They interpret that the following language proposed in § 192.1(b)(2):

- (b) This part does not apply to—
- (2) Onshore gathering of gas *outside of* (emphasis added) * * *
- (iii) Inlets of the Gulf of Mexico except as provided in § 192.612 could be

construed to reverse the intent of this NPRM, making gathering lines within inlets of the Gulf of Mexico subject to part 192 except the provisions of § 192.612. RSPA does not interpret this regulation in the same manner as Exxon. Nonetheless, RSPA agrees that wording suggested by Exxon may be clearer and has revised this regulation in accordance with the suggestion.

Sections 192.3 and 195.2. Practically all of the industry commenters thought that the term "inlets" in the definition of "Gulf of Mexico and its inlets" in §§ 192.3 and 195.2 should be better defined. Many industry commenters thought that inlets could be interpreted to include rivers, tidal marshes, lakes, and canals. Public Law 101-599 was enacted to assure that pipelines in shallow offshore waters where commercial fishing vessels navigate will not pose a hazard to those vessels. In that context, the Fisheries Institute, which also commented that inlets should be better defined, attached a list where menhaden and other commercial fishing activities take place. The Fisheries Institute commented that the list was not an exhaustive list but was submitted in hope that it would help in better defining "Gulf of Mexico and its inlets." The list was:

1. Fresh Water Bayou/Intercoastal Waterway to Calcasieu River, Cameron, Louisiana.
2. Calcasieu Pass, Cameron, Louisiana.
3. Intercoastal Waterway to Morgan City, Louisiana.
4. South West Pass across Vermillion Bay, Intercoastal City, Louisiana.
5. Fresh Water Bayou, Intercoastal City, Louisiana.
6. Houma Navigation Channel/Intercoastal Waterway to Bayou Chene, Morgan City, Louisiana.
7. Houma Navigation Channel through Grand Calliou Bayou/Calliou Lake, DuLac, Louisiana.
8. Houma Navigation Canal through Cat Island Pass, DuLac, Louisiana.
9. East Pascagoula River, Moss Point, Mississippi.

RSPA is including this list in the Preamble in order to assist pipeline operators in identifying where menhaden and commercial fishing activities take place. Most industry commenters proposed that the definition be revised to be limited to inlets that are open to the sea. Many of these industry commenters also proposed that the exclusion of such inlets as rivers, tidal marshes, lakes, and canals be set forth in the regulation. RSPA agrees that the inlets must be better defined and has revised this definition in the final rule to refer to inlets open to the sea excluding rivers, tidal marshes, lakes, and canals.

It is important to repeat information set forth in the Preamble in the NPRM regarding the term "mean low water." That term is used in this regulation to conform with the language used in Pub. L. 101-599. "Mean low water" can be considered to denote "mean lower low water" as used in the nautical chart datum of the National Ocean Service.

Some commenters argued that the definitions of exposed pipeline and hazard to navigation should be limited to water from 3 feet to 15 feet deep, asserting that vessels do not operate in water less than 3 feet deep or that vessels operating in such shallow waters would be incapable of damaging a pipeline. Some of these commenters also stated that it would be difficult to conduct underwater inspections in such shallow waters. Enron proposed similar changes and suggested that a definition for "shallow waters" be incorporated in the definitions limiting such waters from 3 to 15 feet.

RSPA does not agree. There are locations in the offshore waters of Louisiana where the seabed deepens very slowly and 3 feet of depth may be a considerable distance out into open waters. Fishing vessels navigate in such shallow waters, especially when some of these offshore areas have silty and soft seabeds where the hulls of the commercial fishing vessels may intrude into the silty seabed and damage the pipeline. In addition, RSPA is not aware of great difficulties regarding underwater inspections in offshore waters less than 3 feet deep. More importantly, the law requires underwater inspections in waters less than 15 feet deep; so this comment was not incorporated.

Sections 192.612 and 195.413. The Gas Piping Technology Committee (GPTC) commented that many prudent operators of pipelines in the Gulf of Mexico have historically conducted periodic inspections of their offshore pipelines and those operators should be permitted to use an inspection conducted prior to October 3, 1989 as the inspection required in §§ 192.612 and 195.413, especially in an area of stable seabed conditions. RSPA does not agree. RSPA doubts that those inspections may have included determining the depth of burial of the pipelines. The language of the law is clear that only inspections conducted after October 3, 1989 can be used in compliance with the initial inspection; thus RSPA has not adopted this recommendation.

Exxon commented that the proposed rules exclude hazardous liquid gathering lines of 4-inch nominal diameter or smaller from the inspection and

suggested that a similar exclusion be provided for gas gathering lines. RSPA does not agree. While that exclusion for hazardous liquid gathering lines was provided in the law, such an exclusion was not provided for gas gathering lines. RSPA believes that all gathering lines should be handled similarly and is excluding hazardous liquid gathering lines of less than 4-inch nominal diameter only because of the exclusion in the law. RSPA does not see a reason to deviate from the law with regard to gas gathering lines of less than 4-inch nominal diameter.

Many industry commenters stated that it would be very difficult to complete the inspection by 18 months after enactment of the law, (May 16, 1992), or one year after the issuance of the regulations, whichever came first. Some industry commenters asked that the time for the initial inspection be extended to the end of the 1992 summer construction season. Transco suggested that this could be accomplished by using the provisions of the law that provide for an extension of time of 6 months, or November 16, 1992 for gas pipelines. [It should be noted that the law provides for an extension of time of one year, or May 16, 1993 for hazardous liquid pipelines]. Transco also suggested that operators who act in good faith to complete the necessary surveys in a prudent and cost effective manner, but have been unsuccessful in completing the inspection because of scheduling problems, should be afforded that consideration. This regulation, which will be effective on January 6, 1992, goes beyond the May 16, 1992 deadline. However, an extension beyond that date would be in keeping with the intent of the law where just cause exists. RSPA has participated in many forums regarding these regulations and concludes that the pipeline operators are acting in good faith, with due diligence and care, in conducting these inspections. Therefore, RSPA will utilize this provision in the law to extend the deadline for conducting this initial inspection for all pipeline operators and has made this requirement effective on November 16, 1992. Furthermore, because of the emerging development of underwater inspection technology during this period, such an extension is justified. This date for completion of the initial inspection is approximately at the end of the 1992 summer construction season in keeping with the suggestions made by industry commenters. RSPA does not see reason for extending this requirement further for hazardous liquid pipelines.

Sections 192.621(b) and 195.413(b). Several industry commenters objected to the term "discovery" used in proposed §§ 192.621 (b), (b)(1), (b)(2), and (b)(3) and 195.413 (b), (b)(1), (b)(2), and (b)(3). Those commenters believe that the term "discovery" should be changed to "determines." Those commenters stated that in areas where there is a congestion of pipelines, an exposed pipeline may be discovered but time should be allowed for the operator to determine if the pipeline belongs to the operator or if it is an abandoned pipeline.

It should be noted that the proposed rule was applicable to an operator that " * * * discovers that a pipeline *it operates* is exposed * * * " (italicized for emphasis). Therefore, the operator must determine that an exposed pipeline it discovers is a pipeline that it operates. Therefore, RSPA does not believe that the term "discover" needs to be revised and has not adopted this recommendation.

Tenneco Gas commented that there is a deficiency in the existing gas pipeline safety regulations (§ 192.327(e)) that has been carried forward in this proposed rule. The proposed rule appears to require that offshore pipelines must be buried under actual material covering the top of the pipe, rather than being situated in a trench of a certain depth below the natural bottom of the seabed. Tenneco argued that long accepted offshore pipeline construction practice requires jetting-in a trench capable of accommodating the pipeline at least 3 feet beneath the natural bottom of the sea. In soft and silty bottoms, currents soon fill in this trench providing actual burial cover, but where a more consolidated bottom is encountered, the trench may never silt in and the pipe is never really covered although it is adequately protected from passing vessels by the steep walls of the trench. For the purpose of pipeline burial in an offshore environment, Tenneco suggested that the concept of burial should refer to the top of the pipe being beneath the normal surrounding seabed. The API made similar arguments regarding the use of the term "burial" in the definition of a hazard to navigation.

RSPA agrees. The Preamble in the regulation issued in 1976 regarding burial of offshore pipeline recognized these offshore construction practices but did not adequately craft the wording of the regulation accordingly. Revisions have been made to the burial requirements in §§ 192.612(b)(3) and 195.413(b)(3) and the definition of a hazard to navigation to clarify that the top of the pipeline must be a certain

depth below the seabed rather than having to be buried. A revision has also been made to the definition of exposed pipeline to clarify that the top of the pipeline would have to be protruding above the seabed for the pipeline to be considered exposed.

In this regard, the NTSB recommended that "seabed" be defined. The NTSB recognized that the Gulf of Mexico seabed consists of soft soils or silt that make it difficult to define. However, NTSB believes that unless the term seabed is defined, pipeline operators will have no standard by which to implement requirements and OPS will have no measure by which to judge compliance.

RSPA recognizes that many offshore areas in the Gulf of Mexico do not have an easily definable seabed, but still believes that establishing a qualitative measurement of the ocean bottom, such as silt density, would be impracticable because of shifting and varying silt density on the ocean bottom. Therefore, the NTSB recommendation was not adopted.

The Department of the Interior (DOI) recommended that a hazard to navigation be defined as a pipeline less than 36 inches below the seabed in water less than 15 feet deep. DOI commented that a vessel of less than 1600 gross tons operating without a nautical chart and navigating in a manner such that its hull touches the seabed could easily cut through a natural gas or oil pipeline fully buried in 36 inches of silt of unspecified density. DOI further recommended that a pipeline should be marked until such time as the pipeline is reburied to at least 36 inches below the seabed. The NTSB also argued that pipelines be considered a hazard to navigation if not buried 36 inches because testimony at that agency's hearings indicate that commercial fishing vessels may intrude 2 or more feet into the seabed.

RSPA recognizes the hazards to pipelines that are not adequately buried in soft silt. However, RSPA believes, based on what it knows today, that it is technologically impracticable to expect that the initial 36 inches of burial be continuously maintained in light of the shifting silty seabed. RSPA believes that requiring that the top of the pipeline be at least 12 inches below the seabed provides adequate protection while recognizing the unstable offshore environment in the Gulf of Mexico. The Fisheries Institute, representing the commercial fishing industry, also recognized the difficulties of maintaining the burial of offshore pipelines, and supported requiring that

pipelines remain buried only 12 inches. Commercial fishing representatives have indicated to RSPA staff engineers that intrusion of fishing vessels into the seabed would rarely exceed 12 inches because a vessel cannot be extricated from the seabed in such a situation. Therefore, this comment was not adopted.

Many industry commenters objected to having to bury the pipeline within 6 months after discovery that a pipeline is exposed or a hazard to navigation. Those commenters argued that depending on when the discovery is made, weather conditions could make reburial within that time period a difficult, costly, and perhaps hazardous procedure. These commenters stated that the summer construction season is generally recognized as the safest time for underwater work of any kind in the Gulf. Panhandle Eastern raised an additional issue that shrimp spawn in the spring and take several weeks to mature. They also said that oysters spawn in the spring and take several years to mature but the first several weeks are critical for survival. Panhandle Eastern stated that scheduling reburial during this season may be highly detrimental to the reproduction of the shell fish.

RSPA agrees that some flexibility should be permitted for the reburial of the pipelines that are determined to be exposed or a hazard to navigation. Public Law 101-599 permits RSPA to extend the 6 months for reburial with respect to a pipeline facility for such period as is reasonable. RSPA believes that the reasons stated by some commenters—particularly regarding weather conditions during the winter which could make reburial within 6 months a difficult, costly, and perhaps hazardous procedure—justify extending the 6 month period for reburial. Therefore, this proposed requirement has been amended in this final rule to allow for reburial not later than November 1 of the following year if the 6 month period is later than November 1 of the year that an operator discovers that a pipeline it operates is exposed or a hazard to navigation.

Submar, Inc. commented that the current regulations permit less cover than the 36 inches for normal excavation or 18 inches for rock excavation for offshore pipelines if it is impracticable to comply with the minimum cover requirement, and the proposed rule did not provide that flexibility. That commenter stated that protective mats could be placed over a pipeline requiring reburial that could adequately protect the pipeline. RSPA drafted the proposed

rule in accordance with the law that requires reburial.

In addition, RSPA is not sufficiently familiar with the use of these protective mats. Further, the current regulations provide such an option only if it is impracticable to comply with the current cover requirements, making such an option rare. However, RSPA will consider this proposal in a subsequent rulemaking on a mandatory and systematic inspection program of offshore pipelines in the Gulf of Mexico and its inlets as required by Public Law 101-599.

Chevron commented that referencing 33 CFR part 64 as a means to mark pipelines does not provide adequate guidance for pipeline operators. Chevron wondered what minimum buoy placement interval operators should use as a guide to mark an exposed pipeline. If an interval less than one mile is specified, Chevron is concerned that an adequate supply of buoys may not exist. The GPTC commented that Coast Guard buoys are unduly restrictive and costly (about \$900) to be used for a short period of time while the pipeline is scheduled for reburial. The GPTC argued that reflective type buoys that are lower in cost should be permitted, stating that some local Coast Guard Commanders have previously demanded the use of the higher priced, lighted buoys.

RSPA does not agree that the buoys to be used to mark a pipeline should be reflective type buoys because they will only be used up to 6 months. Reflective buoys are very difficult to see at night. The Coast Guard Commanders, being familiar with the offshore waters in their districts, are in a better position to determine the type of buoy that should be used in that district. Therefore, RSPA believes that the local Coast Guard Commander should specify the type of buoy in accordance with 33 CFR part 64, and should not be restricted to low cost reflective buoys. RSPA has been advised by the Coast Guard that they require yellow lighted buoys having a yellow light flashing not more than 30 times per minute. In addition, RSPA concludes that the placement of a buoy should be at the ends of the pipeline segment and at intervals of not more than 500 yards. However, if the pipeline segment that requires marking is less than 200 yards, the segment need only be marked at the center of the segment. One mile intervals, as proposed by Chevron is too far of a distance to indicate that there is an underwater hazard. RSPA has consulted with the Coast Guard concerning these requirements. The Coast Guard advises

that a list of supply sources for buoys can be obtained by contacting the Commander, Eighth Coast Guard District, Hale Boggs Federal Building, 500 Camp Street, New Orleans, LA 70130-3396; telephone (504) 589-2944 or 589-6234.

Two industry commenters stated that reporting a pipeline to the Coast Guard within 24 hours after discovery did not provide sufficient time under certain circumstances. Since an operator must determine that an exposed pipeline is a pipeline that it operates, this should provide adequate time to notify the Coast Guard 24 hours after discovery that the pipeline is exposed or a hazard to navigation. Therefore, RSPA did not adopt this comment. This final rule has been revised to require pipeline operators to notify the National Response Center, telephone: 1-800-424-8802 rather than the U.S. Coast Guard, as was proposed in the Notice. The National Response Center is operated by the Coast Guard and will provide the information to the appropriate Coast Guard district office. This final rule requires that the report to the National Response Center include the location of the pipeline segment. The Coast Guard has advised RSPA that the location should be identified by Loran—C coordinates, state plane coordinates, geographic coordinates consisting of latitude and longitude in degrees, minutes, and seconds, or by other equivalent methods.

Texaco and API argued that marking the pipeline in 7 days may not provide sufficient time. They recommended 30 days. RSPA does not agree. Thirty days is too long of a period to leave unmarked a pipeline that is exposed or a hazard to navigation. Seven days should provide sufficient time for marking a pipeline. Therefore, RSPA did not adopt this comment.

Cost/Benefit Analysis

The City of Florence Gas System commented that they would like to see a cost/benefit analysis conducted before the regulation becomes effective. RSPA has prepared such an evaluation and it is available in the docket. This evaluation estimates the present value of the benefits to be \$17.6 million and the present value of the costs to be \$8.7 million.

Chevron believes that the RSPA estimate of \$8,000 per mile for an initial inspection is very low. They believe that \$12,000 per mile is more realistic and that the costs may rise if equipment is not available. Chevron further observed that the costs of reburying exposed pipelines were not included in the cost/

benefits analysis. They estimated that this rulemaking could cost \$50 million or as much as \$100 million if grandfathered pipelines are covered by this regulation. Conversely, the Fisheries Institute stated that the cost of \$9,000 per mile for an initial inspection is too high, indicating that \$7,000 is closer to the market value.

RSPA does not agree with Chevron that this rulemaking could cost \$50 million, much less \$100 million. RSPA conservatively estimates that approximately 1,000 miles of offshore pipelines will be subject to the inspection requirements. RSPA acknowledges that it is difficult to estimate the number of miles of pipeline that may be exposed or a hazard to navigation, and has used conservative cost figures as well as conservative benefit figures in developing the cost/benefit analysis. Realistic reburial costs have been factored into the analysis. The number of miles of pipelines that require reburial as a result of this initial inspection will be known and appropriately considered in any later rulemaking regarding periodic inspections. With respect to this rulemaking, these regulations were developed very narrowly in accordance with the law, and RSPA has determined that the expected benefits will exceed the expected costs.

Impact Assessment

The proposed rules are considered to be non-major under Executive Order 11591, and are not considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979).

This proposed rulemaking is required by law. The costs of conducting the underwater inspections are now averaging less than \$8,000 per mile using recently developed technology. Some of the variables that affect the costs of conducting an underwater inspection are the amount of pipeline to be inspected, weather, mobilization costs, and location. Based on available data, there are less than 1,000 miles of offshore gas and hazardous liquid pipelines in the Gulf of Mexico and its inlets in water less than 15 feet deep, so that it should cost less than \$8 million to conduct the initial inspection of these pipelines as mandated by Public Law 101-599. Costs are continuing to drop as better technology is developed and underwater inspections become more common. INGAA provided information regarding the underwater inspections that have been conducted as of June 23, 1990, and assuming that this data is representative of the findings in future underwater pipeline inspections, it

appears that less than 1 percent of the offshore pipelines may be exposed above the seabed. However, information is not yet available to determine the percentage of the pipelines that may be a hazard to navigation (i.e., those pipelines buried less than 12 inches). Current pipeline technology can be used in reburying pipelines. The cost of reburying a pipeline also varies significantly depending on similar variable factors set forth above.

A Regulatory Evaluation has been prepared and is available in the docket. This evaluation estimates the present value of the benefits to be \$17.6 million and the present value of the costs to be \$8.7 million. Based on the facts available concerning the impact of this final rule, I certify under Section 605 of the Regulatory Flexibility Act that they would not, have a significant impact on a substantial number of small entities, because small entities do not operate pipelines offshore.

Paperwork Reduction Act

The final rule requires that pipeline operators report to RSPA pipelines in the Gulf of Mexico and its inlets that are exposed or a hazard to navigation. In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96-511), these information collection requirements have been approved by the Office of Management and Budget.

The reporting and recordkeeping requirements associated with this rule were submitted to the Office of Management and Budget for approval in accordance with 44 U.S.C. chapter 35. The reporting and recordkeeping approval is No. 2137-0583.

Federalism

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612. RSPA has determined that it does not have sufficient federalism implications to warrant preparation of a Federalism Assessment.

List of Subjects

49 CFR Part 190

Administrative practice and procedure, Penalties, Pipeline safety.

49 CFR Parts 191 and 192

Pipeline safety, Reporting and recordkeeping requirements.

49 CFR Part 195

Ammonia, Carbon dioxide, Petroleum, Pipeline safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, RSPA amends 49 CFR parts 190, 191, 192, and 195 as follows:

PART 190—[AMENDED]

1. The authority citation for part 190 continues to read as follows:

Authority: 49 App. U.S.C. 1672, 1677, 1679a, 1679b, 1680, 1681, 1804, 2002, 2006, 2007, 2008, 2009, and 2010; 49 CFR 1.53.

2. Section 190.229 is amended by revising paragraph (d) to read as follows:

§ 190.229 Criminal penalties generally.

(d) Any person who willfully and knowingly defaces, damages, removes, or destroys any pipeline sign, right-of-way marker, or marine buoy required by the NGPSA, the HLPDA, or the HMTA, or any regulation or order issued thereunder shall, upon conviction, be subject, for each offense, to a fine of not more than \$5,000, imprisonment for a term not to exceed 1 year, or both.

PART 191—[AMENDED]

1. The authority citation for part 191 continues to read as follows:

Authority: 49 App. U.S.C. 1681(b) and 1808(b); §§ 191.23 and 191.25 also issued under 49 App. U.S.C. 1672(a); and 49 CFR 1.53.

2. Section 191.27 is added to read as follows:

§ 191.27 Filing offshore pipeline condition reports.

(a) Each operator shall, within 60 days after completion of the inspection of all its underwater pipelines subject to § 192.612(a), report the following information:

- (1) Name and principal address of operator.
- (2) Date of report.
- (3) Name, job title, and business telephone number of person submitting the report.
- (4) Total number of miles of pipeline inspected.
- (5) Length and date of installation of each exposed pipeline segment, and location, including, if available, the location according to the Minerals Management Service or state offshore area and block number tract.
- (6) Length and date of installation of each pipeline segment, if different from a pipeline segment identified under paragraph (a)(5) of this section, that is a hazard to navigation, and the location, including, if available, the location according to the Minerals Management

Service or state offshore area and block number tract.

(b) The report shall be mailed to the Information Officer, Research and Special Programs Administration, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590.

PART 192—[AMENDED]

1. The authority citation for part 192 continues to read as follows:

Authority: 49 App. U.S.C. 1672 and 1804; 49 CFR 1.53.

2. Section 192.1 is amended by adding paragraph (b)(3) to read as follows:

§ 192.1 Scope of part.

* * * * *

(b) * * *

(3) Onshore gathering of gas within inlets of the Gulf of Mexico except as provided in § 192.612.

3. In § 192.3, definitions of *Exposed pipeline*, *Gulf of Mexico and its inlets*, and *Hazard to navigation* are added in appropriate alphabetical order as follows:

§ 192.3 Definitions.

* * * * *

Exposed pipeline means a pipeline where the top of the pipe is protruding above the seabed in water less than 15 feet deep, as measured from the mean low water.

* * * * *

Gulf of Mexico and its inlets means the waters from the mean high water mark of the coast of the Gulf of Mexico and its inlets open to the sea (excluding rivers, tidal marshes, lakes, and canals) seaward to include the territorial sea and Outer Continental Shelf to a depth of 15 feet, as measured from the mean low water.

Hazard to navigation means, for the purpose of this part, a pipeline where the top of the pipe is less than 12 inches below the seabed in water less than 15 feet deep, as measured from the mean low water.

* * * * *

4. Section 192.612 is added to Subpart L to read as follows:

§ 192.612 Underwater inspection and reburial of pipelines in the Gulf of Mexico and its inlets.

(a) Each operator shall, in accordance with this section, conduct an underwater inspection of its pipelines in the Gulf of Mexico and its inlets. The inspection must be conducted after October 3, 1989 and before November 16, 1992.

(b) If, as a result of an inspection under paragraph (a) of this section, or

upon notification by any person, an operator discovers that a pipeline it operates is exposed on the seabed or constitutes a hazard to navigation, the operator shall—

(1) Promptly, but not later than 24 hours after discovery, notify the National Response Center, telephone: 1-800-424-8802 of the location, and, if available, the geographic coordinates of that pipeline;

(2) Promptly, but not later than 7 days after discovery, mark the location of the pipeline in accordance with 33 CFR Part 64 at the ends of the pipeline segment and at intervals of not over 500 yards long, except that a pipeline segment less than 200 yards long need only be marked at the center; and

(3) Within 6 months after discovery, or not later than November 1 of the following year if the 6 month period is later than November 1 of the year the discovery is made, place the pipeline so that the top of the pipe is 36 inches below the seabed for normal excavation or 18 inches for rock excavation.

PART 195—[AMENDED]

1. The authority citation for part 195 continues to read as follows:

Authority: 49 App. U.S.C. 2001 et seq.; 49 CFR 1.53.

2. Section 195.1 is amended by revising paragraph (b)(4) to read as follows:

§ 195.1 Applicability.

* * * * *

(b) * * *

(4) Transportation of petroleum in onshore gathering lines in rural areas except gathering lines in the inlets of the Gulf of Mexico subject to § 195.413;

3. In § 195.2, definitions of *Exposed pipeline*, *Gulf of Mexico and its inlets*, and *Hazard to navigation* are added in appropriate alphabetical order as follows:

§ 195.2 Definitions.

* * * * *

Exposed pipeline means a pipeline where the top of the pipe is protruding above the seabed in water less than 15 feet deep, as measured from the mean low water.

* * * * *

Gulf of Mexico and its inlets means the waters from the mean high water mark of the coast of the Gulf of Mexico and its inlets open to the sea (excluding rivers, tidal marshes, lakes, and canals) seaward to include the territorial sea and Outer Continental Shelf to a depth of 15 feet, as measured from the mean low water.

Hazard to navigation means, for the purpose of this part, a pipeline where the top of the pipe is less than 12 inches below the seabed in water less than 15 feet deep, as measured from the mean low water.

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4. Section 195.57 is added to subpart B to read as follows:

§ 195.57 Filing offshore pipeline condition reports.

(a) Each operator shall, within 60 days after completion of the inspection of all its underwater pipelines subject to § 195.413(a), report the following information:

(1) Name and principal address of operator.

(2) Date of report.

(3) Name, job title, and business telephone number of person submitting the report.

(4) Total number of miles of pipeline inspected.

(5) Length and date of installation of each exposed pipeline segment, and location; including, if available, the location according to the Minerals Management Service or state offshore area and block number tract.

(6) Length and date of installation of each pipeline segment, if different from a pipeline segment identified under paragraph (a)(5) of this section, that is a hazard to navigation, and the location; including, if available, the location according to the Minerals Management Service or state offshore area and block number tract.

(b) The report shall be mailed to the Information Officer, Research and Special Programs Administration, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590.

4. Section 195.413 is added to subpart F to read as follows:

§ 195.413 Underwater inspection and reburial of pipelines in the Gulf of Mexico and its inlets.

(a) Except for gathering lines of 4-inch nominal diameter or smaller, each operator shall, in accordance with this section, conduct an underwater inspection of its pipelines in the Gulf of Mexico and its inlets. The inspection must be conducted after October 3, 1989 and before November 16, 1992.

(b) If, as a result of an inspection under paragraph (a) of this section, or upon notification by any person, an operator discovers that a pipeline it operates is exposed on the seabed or constitutes a hazard to navigation, the operator shall—

(1) Promptly, but not later than 24 hours after discovery, notify the National Response Center, telephone: 1-800-424-8802 of the location, and, if available, the geographic coordinates of that pipeline;

(2) Promptly, but not later than 7 days after discovery, mark the location of the pipeline in accordance with 33 CFR Part 64 at the ends of the pipeline segment

and at intervals of not over 500 yards long, except that a pipeline segment less than 200 yards long need only be marked at the center; and

(3) Within 6 months after discovery, or not later than November 1 of the following year if the 6 month period is after November 1 of the year that the discovery is made, place the pipeline so that the top of the pipe is 36 inches

below the seabed for normal excavation or 18 inches for rock excavation.

Issued in Washington, DC on November 27, 1991.

Travis P. Dungan,

Administrator, Research and Special Programs Administration.

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